

FILE ID**FOOBOT

i 9

FOO
VO4

The diagram consists of three sets of symbols arranged in a grid:

- L**: Located in the first column, spanning from row 1 to row 12.
- I**: Located in the second through fifth columns, spanning from row 1 to row 12. Each symbol is composed of two vertical strokes.
- S**: Located in the sixth through ninth columns, spanning from row 1 to row 12. Each symbol is composed of two diagonal strokes.

The symbols are placed in a staggered, non-overlapping manner across 12 columns and 12 rows.

1 0001 0 MODULE foobot { IDENT = 'V04-000'
2 0002 0 XBLISS32[, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE,
3 0003 0 NONEXTERNAL = LONG_RELATIVE)]
4 0004 0) =
5 0005 1 BEGIN
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 1 *
27 0027 1 *
28 0028 1 *****
29 0029 1 *
30 0030 1 *
31 0031 1 ++
32 0032 1 : FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
33 0033 1 : ABSTRACT:
34 0034 1 :
35 0035 1 : Puts as many footnotes as possible at the bottom of the current page.
36 0036 1 :
37 0037 1 : ENVIRONMENT: Transportable
38 0038 1 :
39 0039 1 : AUTHOR: R.W.Friday CREATION DATE: November, 1981
40 0040 1 :
41 0041 1 :

Revision History

K 9
16-Sep-1984 00:31:07
14-Sep-1984 13:06:23
VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]FOOBOT.BLI;1Page 2
(2)

43 0042 1 XSBTTL 'Revision History'
44 0043 1 MODIFIED BY:
45 0044 1
46 0045 1 004 RER00004 Ron Randall 05-Apr-1983
47 0046 1 For DSRPLUS: Added code for footnote numbering.
48 0047 1
49 0048 1 003 RER00003 Ron Randall 07-Mar-1983
50 0049 1 Global edit of all modules. Updated module names, idents,
51 0050 1 copyright dates. Changed require files to BLISS library.
52 0051 1 --
53 0052 1

```
55 0053 1 %SBTTL 'Module Level Declarations'  
56 0054 1  
57 0055 1 TABLE OF CONTENTS:  
58 0056 1  
59 0057 1 FORWARD ROUTINE  
60 0058 1 FOOBOT : NOVALUE;  
61 0059 1  
62 0060 1 INCLUDE FILES:  
63 0061 1  
64 0062 1 LIBRARY 'NXPORT:XPORT'; ! XPORT Library  
65 0063 1 REQUIRE 'REQ:RNODEF'; ! RUNOFF variant definitions  
66 0194 1  
67 U 0195 1 %IF DSRPLUS %THEN  
68 U 0196 1 LIBRARY 'REQ:DPLLIB'; ! DSRPLUS BLISS Library  
69 0197 1 %ELSE  
70 0198 1 LIBRARY 'REQ:DSRLIB'; ! DSR BLISS Library  
71 0199 1 %FI  
72 0200 1  
73 0201 1  
74 0202 1 MACROS:  
75 0203 1  
76 0204 1 This macro makes certain that when blank lines at the top or bottom  
77 0205 1 of a page are skipped change bars don't get output.  
78 0206 1  
79 0207 1 MACRO  
80 M 0208 1 NO_BAR_SKIP (N) =  
81 M 0209 1 BEGIN  
82 M 0210 1 LOCAL  
83 M 0211 1 HOLD_BARS;  
84 M 0212 1  
85 M 0213 1 HOLD_BARS = .TSF_BARS;  
86 M 0214 1 TSF_BARS = FALSE;  
87 M 0215 1 USKIPL (N);  
88 M 0216 1 TSF_BARS = .HOLD_BARS;  
89 M 0217 1 END-%;  
90 0218 1  
91 0219 1 EXTERNAL REFERENCES:  
92 0220 1  
93 0221 1 EXTERNAL ! Footnote control table.  
94 0222 1 FNCT : FNCT DEFINITION,  
95 0223 1 FNESIZ : FN EXT SIZE DEFINITION,  
96 0224 1 HCT : HCT DEFINITION,  
97 0225 1 PHAN : PHAN DEFINITION,  
98 0226 1 TSF : TSF_DEFINITION;  
99 0227 1  
100 0228 1 EXTERNAL LITERAL  
101 0229 1 RNFFWF;  
102 0230 1  
103 0231 1 EXTERNAL ROUTINE  
104 0232 1 ERML,  
105 0233 1 FOOOUT,  
106 0234 1 TPFFIT,  
107 0235 1 TPFSP,  
108 0236 1 USKIPL;  
109 0237 1
```

```
111 0238 1 GLOBAL ROUTINE foobot : NOVALUE =
112 0239 1
113 0240 1 !++
114 0241 1 ! FUNCTIONAL DESCRIPTION:
115 0242 1
116 0243 1 See ABSTRACT, above.
117 0244 1
118 0245 1 FORMAL PARAMETERS: None
119 0246 1
120 0247 1 IMPLICIT INPUTS: None
121 0248 1
122 0249 1 IMPLICIT OUTPUTS: None
123 0250 1
124 0251 1 ROUTINE VALUE:
125 0252 1 COMPLETION CODES: None
126 0253 1
127 0254 1 SIDE EFFECTS: None
128 0255 1 !--
129 0256 1
130 0257 2 BEGIN
131 0258 2
132 0259 2
133 0260 2 ! See if there are any footnotes to be output.
134 0261 2
135 0262 2 IF (.FNCT_READY NEQ 0)
136 0263 2 THEN
137 0264 2
138 0265 2
139 0266 2 ! See if these footnotes should be output now.
140 0267 2 Check for two cases:
141 0268 2 one in which there's a footnote that's too big to fit on the page,
142 0269 2 and the other in which there's no such error.
143 0270 2
144 0271 2 ! Skip over old footnotes, consider the first ready footnote.
145 0272 2
146 0273 3 IF .FNESIZ [.FNCT_OLD] GTR
147 0274 3 (.PHAN_LLINES + .HCT_LAYOUTN -
148 0275 4 (IF .HCT_HEADERS
149 0276 4 THEN ! 3 is title line + 2 blank lines.
150 0277 5 3 + (IF .HCT_SUBTITLE THEN 1 ELSE 0)
151 0278 4 ELSE
152 0279 4 0)
153 0280 4
154 U 0281 4 XIF DSRPLUS XTHEN
155 U 0282 4 - (IF .FNCT_NUMBERING THEN 1 ELSE 0)
156 U 0283 4 XFI
157 0284 4
158 0285 3
159 0286 2 THEN
160 0287 2
161 0288 2 ! The first ready footnote is so lengthy that it requires
162 0289 2 more space than allowed per page of the document,
163 0290 2 so force it out now and complain to the user.
164 0291 2
165 0292 2 BEGIN
166 0293 2 ERML (RNFFWF);
167 0294 2 FOOOUT (1) ! Dump one footnote, namely the bad one.
```

```

168      0295 3      END
169      0296 2      ELSE
170      0297 2
171      0298 2      These footnotes are not too lengthy, so see if there is
172      0299 2      space at the bottom of the page to output them now.
173      0300 2
174      0301 3      BEGIN
175      0302 3      LOCAL
176      0303 3      HOW_MANY_FIT;
177      0304 3
178      0305 3
179      0306 3      Find out how many footnotes of the ready ones can fit.
180      0307 3
181      0308 3      HOW_MANY_FIT = TPFFIT ();
182      0309 3
183      0310 4      IF (.HOW_MANY_FIT NEQ 0)
184      0311 4      THEN
185      0312 4
186      0313 3      There are some footnotes that will fit. Output them.
187      0314 3
188      0315 4      BEGIN
189      0316 4      LOCAL
190      0317 4      HOLD_PAGING;
191      0318 4
192      0319 4      HOLD_PAGING = .PHAN_PAGING;
193      0320 4      PHAN_PAGING = FALSE;
194      0321 4
195      0322 4      Position to proper location on page.
196      0323 4
197      0324 4      NO BAR_SKIP (TPFSKP (.HOW_MANY_FIT));
198      0325 4      FOOOUT (.HOW_MANY_FIT); ! Generate the footnotes now.
199      0326 4      PHAN_PAGING = .HOLD_PAGING;
200      0327 4      END
201      0328 4
202      0329 2      END;
203      0330 2
204      0331 1      END;

```

! End of routine FOOBOT

```

.TITLE FOOBOT
.IDENT \V04-000\
.EXTRN FNCT, FNESIZ, HCT
.EXTRN PHAN, TSF, RNFFWF
.EXTRN ERML, FOOOUT, TPFFIT
.EXTRN TPFSKP, USKIPL

.PSECT SCODE$, NOWRT, 2

```

58 00000000G	EF	01FC 00000	.ENTRY FOOBOT Save R2,R3,R4,R5,R6,R7,R8	0238
57 00000000G	EF	9E 00002	MOVAB TSF, R8	
56 00000000G	EF	9E 00009	MOVAB FOOOUT, R7	
55 00000000G	EF	9E 00010	MOVAB HCT+32, R6	
00000000G	EF	00017	MOVAB PHAN+40, R5	
50 00000000G	4C	D5 00024	TSTL FNCT+4	
		DO 00026	BEQL 6\$	0262
			MOVL FNCT+12, R0	0273

Module Level Declarations

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52	DC	B5		66	C1	0002D		ADDL3	HCT+32, @PHAN+4, R2	: 0274			
		10		B6	E9	00032		BLBC	@HCT+8, 3\$: 0275			
		05		B6	E9	00036		BLBC	@HCT+24, 1\$: 0277			
		51		01	D0	0003A		MOVL	#1, R1				
				02	11	0003D		BRB	2\$				
				51	D4	0003F	1\$:	CLRL	R1				
				03	C0	00041	2\$:	ADDL2	#3, R1				
				02	11	00044		BRB	4\$				
				51	D4	00046	3\$:	CLRL	R1				
				51	C2	00048	4\$:	SUBL2	R1, R2				
				52	00000000GEF	40		CMPL	FNESIZ[R0], R2				
					13	15	00053	BLEQ	5\$				
				00000000G	EF			PUSHL	#RNFFWF				
					01	FB	0005B	CALLS	#1, ERML				
					01	DD	00062	PUSHL	#1				
					67	01	FB	CALLS	#1, FOOOUT				
							00064	RET					
				00000000G	EF			CALLS	#0, TPFFIT				
					53		00068	5\$:	MOVL	R0, HOW_MANY_FIT			
						50	DO	0006F	BEQL	7\$			
						38	13	00072	MOVL	@PHAN+40, HOLD_PAGING			
					54	00	B5	00074	CLRL	@PHAN+40			
						50	B5	00078	MOVL	TSF, R0			
						68	DO	0007B	EXTZV	#0, #1, 124(R0), HOLD_BARS			
					7C	A0	01	EF	BICB2	#1, 124(R0)			
							00	0007E	PUSHL	HOW_MANY_FIT			
					7C	A0	01	8A	00084	CALLS	#1, TPFSRP		
							53	DD	00088	PUSHL	RO		
				00000000G	EF			01	FB	0008A	CALLS	#1, USKIPL	
							50	DD	00091	MOVL	TSF, R0		
				00000000G	EF			01	FB	00093	INSV	HOLD_BARS, #0, #1, 124(R0)	
						50	68	DO	0009A	PUSHL	HOW_MANY_FIT		
						68	DO	0009D	CALLS	#1, FOOOUT			
					7C	A0	01	52	FO	000A3	MOVL	HOLD_PAGING, @PHAN+40	
							53	DD	000A5	RET			
						00	B5	04	DO	000A8			

: Routine Size: 173 bytes. Routine Base: \$CODE\$ + 0000

: 205 0332 1
 : 206 0333 1 END
 : 207 0334 0 ELUDOM

! End of module

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	173	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

FOOBOT
V04-000

Module Level Declarations

C 10
16-Sep-1984 00:31:07
14-Sep-1984 13:06:23

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]FOOBOT.BLI;1

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Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
\$255\$DUA28:[SYSLIB]XPORT.L32:1	590	0	0	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32:1	1248	20	1	86	00:00.3

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:FOOBOT/OBJ=OBJ\$:FOOBOT MSRC\$:FOOBOT/UPDATE=(ENH\$:FOOBOT)

Size: 173 code + 0 data bytes
Run Time: 00:04.5
Elapsed Time: 00:14.5
Lines/CPU Min: 4453
Lexemes/CPU-Min: 13266
Memory Used: 51 pages
Compilation Complete

0341 AH-BT13A-SE
VAX/VMS V4.0

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